

alzheimer's association | *Advancing the Science: The Latest in Alzheimer's and Dementia Research*

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Our Time Today...

- Landscape of Alzheimer's
- Clarify terminology that's used to describe Alzheimer's and dementia
- Highlights in Early Detection and Diagnosis
- Latest Advances in Clinical Trials, Treatments and Lifestyle Interventions
- Alzheimer's Association resources

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2020 Alzheimer's Disease Facts and Figures

Alzheimer's disease is the leading cause of death in the United States **6th**

More than **5 million** Americans are living with Alzheimer's

16 million Americans provide unpaid care for people with Alzheimer's or other dementias

50% of primary care physicians believe the medical profession is not ready for the growing number of people with Alzheimer's or other dementias

1 in 3 seniors dies with Alzheimer's or another dementia

In 2020, Alzheimer's and other dementias will cost the nation **\$305 billion** — By 2050, these costs could rise as high as **\$1.1 trillion**

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ALABAMA ALZHEIMER'S STATISTICS

65+ NUMBER OF PEOPLE AGED 65 AND OLDER WITH ALZHEIMER'S BY 2025

2,616 # OF DEATHS FROM ALZHEIMER'S DISEASE (2019)

44 # OF SENIORS WITH ALZHEIMER'S DISEASE (2019)

306,000 CAREGIVERS (2019)

1,427 HOSPITALS (2019)

5,867 NURSING HOMES (2019)

\$925 MILLION MEDICARE (2019)

14.1% CAREGIVERS (2019)

18% HOSPITALS (2019)

21.8% NURSING HOMES (2019)

\$22,555 MEDICARE (2019)

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OUR MISSION

JEROME H. STONE (FOUNDER) 1903-2005

The Alzheimer's Association is a worldwide voluntary health organization dedicated to Alzheimer's care, support and research.

Our mission is to lead the way to end Alzheimer's and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support.

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DEMENTIA IS A SYNDROME

- Dementia is a collection of symptoms related to cognitive decline
- Can include cognitive, behavioral and psychological symptoms
- Due to biological changes in the brain
- Alzheimer's is most common cause
- Mixed dementia is very prevalent
- Some causes of cognitive decline are reversible and not truly dementia

DEMENTIA
An "umbrella" term used to describe a range of symptoms associated with cognitive impairment.

ALZHEIMER'S 60%-80%
VASCULAR 10%-40%
LEWY BODIES 10%-25%
FRONTOTEMPORAL ~10%
MIXED DEMENTIA → 1 NEUROPATHOLOGY - PREVALENCE ~ 50%

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ALZHEIMER'S DEMENTIA

- Degenerative brain disease and the most common form of dementia (60-80% of cases)
- A continuum that begins before symptoms occur and worsens over time
- Causes memory loss and a decline in cognitive abilities that affects daily activities



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CONTINUUM OF COGNITIVE IMPAIRMENT

Impairment does not interfere with activities of daily living Impairment in two or more cognitive functions that interfere with activities of daily living

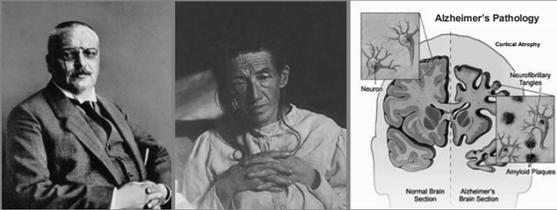


MCI is a known risk factor for dementia
Everyone who experiences dementia passes through MCI
When you prevent new cases of MCI, you are preventing new cases of dementia

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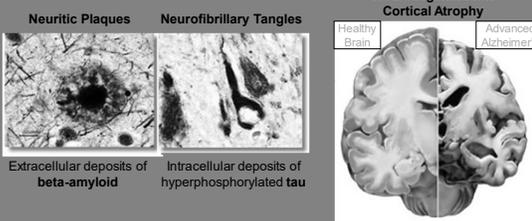
HALLMARKS OF ALZHEIMER'S DISEASE



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HALLMARKS OF ALZHEIMER'S DISEASE



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WHAT MAY IMPACT RISK:

- Age
- Genetics
- Race / Ethnicity
- Environmental and Lifestyle Factors
- Cardiovascular Health
- Physical Activity
- Diet
- Sleep
- Social / Cognitive Engagement
- Education

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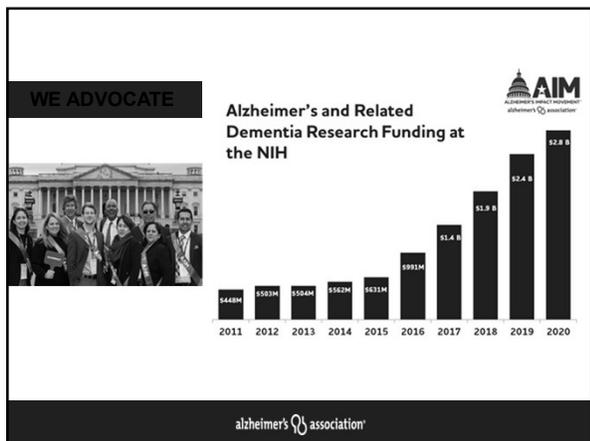
BLACK / AFRICAN AMERICANS are about **2x** and **HISPANIC / LATINOS** are about **1.5x** more like than **WHITES** to have Alzheimer's or other dementias...



...YET they are less likely to receive a diagnosis

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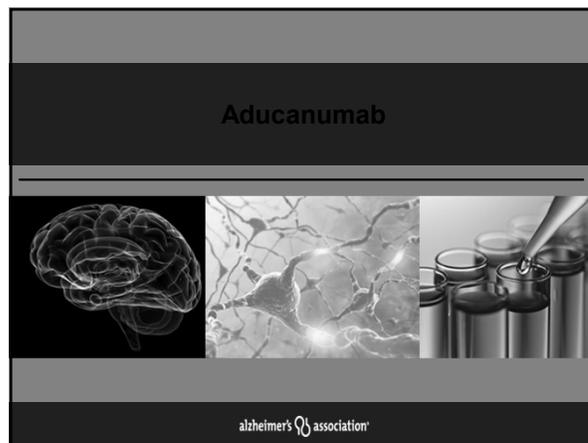
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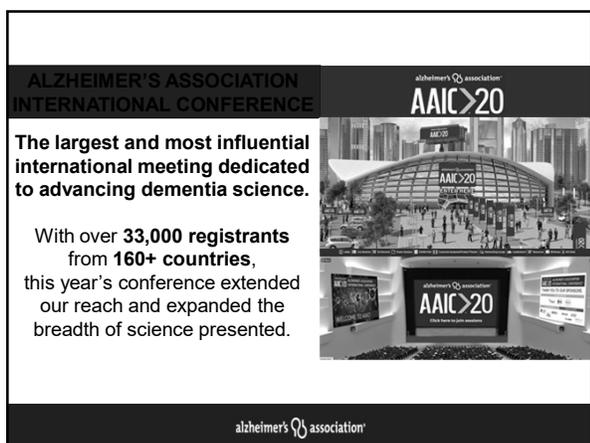
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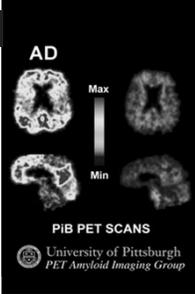
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THE HUNT FOR BIOMARKERS

- Biological marker to measure change
- Reliable predictor and indicator of disease and disease progression
 - Glucose for insulin resistance and diabetes
 - Cholesterol for heart disease
- Uses in Alzheimer's disease include:
 - **Diagnostic:** determining diagnosis
 - **Enrichment:** reinforcing entry criteria into a clinical trial
 - **Prognostic:** determining course of illness
 - **Predictive:** treatment outcomes and safety assessment



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TAU: ANOTHER BLOOD BIOMARKER EMERGES

AAIC 2020

TANGLES
Research is looking at twisted proteins called tau tangles that build up inside cells and may correlate more closely with cognitive decline than beta amyloid.

PLAQUES
These amyloid protein deposits build up between brain cells in Alzheimer's disease.

Research suggests that a form of tau called p-Tau217 is very specific to Alzheimer's and, when measured in the blood, is highly accurate in distinguishing Alzheimer's from other neurodegenerative disorders.

While still in research stages, **blood tests are easier to administer and more accessible** than current methods of evaluating Alzheimer's

- Differentiate Alzheimer's from other dementias
- Diagnose stage of disease
- Identify appropriate people for clinical trials
- Show changes 20 years before dementia symptoms arise

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MODERNIZING THE DIAGNOSIS

Cognitively Unimpaired	Alzheimer's Dementia
Biomarkers	History & Cognition

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years or more before symptoms appear, the brain changes of Alzheimer's may begin.

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PROGRESS TOWARD MORE EFFECTIVE TREATMENTS



A future Alzheimer's therapy will likely include both lifestyle interventions and medicines

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CURRENT LANDSCAPE OF CLINICAL TRIALS FOR ALZHEIMER'S AND ALL DEMENTIA

Drugs and Devices		
Phase I	Phase II	Phase III
111	175	63

As of Apr. 2020

71 cognitive assessment, cognitive training, and computerized devices

Always a Need for Participants

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MEDICINES FOCUSED ON BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA

- A major quality of life problem for people living with dementia
- Must be tested in dementia population
- Ongoing clinical trials focusing on therapies for:
 - **Agitation** (aggression)
 - **Sleep disturbances** (insomnia / interrupted sleep disorders)
 - **Psychosis** (hallucinations / delusions)
 - **Apathy** (lack of appropriate emotional response)

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THE SPRINT-MIND STUDY

First Study to Demonstrate Reduction of New Cases of Cognitive Impairment

- 9,000+ people, Over age 50, All-cause dementia risk
- Standard vs. Intensive Blood Pressure Intervention
- Intensive treatment 120 systolic vs. 140 systolic
- Dramatic reduction of small vessel disease on MRI

19% REDUCED risk for MCI

17% REDUCED risk for Dementia

15% REDUCED combined risk for MCI and Dementia

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WHY IS THIS IMPORTANT?

There are things you can do to reduce your risk of MCI and dementia – especially regarding cardiovascular disease risk factors.

Immediate opportunity with life changing impact potential

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U.S. POINTER

U.S. Study to Protect Brain Health through Lifestyle Intervention to Reduce Risk

Two year multi-center randomized clinical trial

Self-Guided and Structured Lifestyle Groups

2,000 Participants at five U.S. sites, 60-79 years old, with suboptimal lifestyles

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AT ANY GIVEN MOMENT ... US POINTER IS ENROLLING!

5 Sites (N=400 per site)

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A LANDMARK STUDY: TWO LIFESTYLE INTERVENTIONS

Self-Guided Lifestyle Intervention — Differ in format, expectations, and accountability — **Structured Lifestyle Intervention**

Physical Activity | Nutrition | Cognitive Stimulation | Health Coaching

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GLOBAL

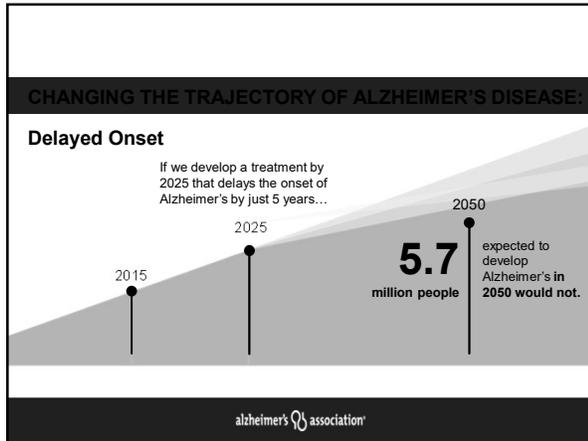
U.S. POINTER ISN'T ALONE

Worldwide FINGERS is a broad, international network sharing experiences, data, and planning joint efforts for the prevention of cognitive impairment & dementia worldwide.

Legend:
 ■ Currently planning or implementing a FINGER-like study
 ■ Countries in the planning phase for FINGER-like studies

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HOW TO GET INVOLVED IN RESEARCH

trialmatch®

Over 350,000 Users
300+ Clinical Studies at 500+ Locations
alz.org/trialmatch

TrialMatch is a free **clinical studies matching service** designed to provide a **customized list** of potential study matches to each user.

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Introducing the Alzheimer's Association Science Hub App

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24/7 Helpline

- Available around the clock, 365 days a year.
- Helpline specialists and master's-level clinicians offer confidential support and information.
- Bilingual staff and translation service in 200+ languages
- Live chat available.
- TTY Service 866.403.3073

24/7 Helpline
800.272.3900

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Live Chat

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Benefits of Support Group

- Peer-to-peer exchange of information, challenges and possible solutions
- Helps caregiver work through feelings & share coping strategies
- Emphasize importance of maintaining physical and mental health

To find a local support group, visit www.alz.org/crf and enter your zip code

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Education Programs

- 10 Warning Signs
- Understanding Alzheimer's and Dementia
- Dementia Conversations
- Effective Communication Strategies
- Legal and Financial Planning
- Understanding and Responding to Dementia-Related Behaviors



Alz.training.org

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Community Resource Finder

www.communityresourcefinder.org

Get easy access to resources, community programs and services.

Based on guidance from local governments and health departments during the COVID-19 crisis, many programs will be offered virtually rather than in-person.

 PROGRAMS AND EVENTS	 PROGRAMS AND EVENTS	 CARE AT HOME
 COMMUNITY SERVICES	 HOUSING OPTIONS	 MEDICAL SERVICES

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Walk Details - Alabama

Auburn - Nov. 7th,
 Birmingham - Oct. 17th, Sloss Furnace
 Florence - Oct. 24th, McFarland Park
 Huntsville - Oct. 9th, Big Spring Park
 Jacksonville - Sept. 26th,
 Mobile - Nov. 14th, Spring Hill College
 Montgomery - Nov. 6th,
 Tuscaloosa - Oct. 3rd, Snow Hinton Park



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Questions?

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1-800-272-3900

Vision: A world without
 Alzheimer's disease
 and all other dementia.™



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